

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: D. James Surmeier, et al.

Serial No.:

10/761,557

Group No.: 1645

Filed:

01/21/04

Examiner:

Entitled: Manipulation of Neuronal Ion Channels

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

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By:

Mary Ellen Waite

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Enclosed please find an Information Disclosure Statement and Form PTO-1449, including copies of the references contained thereon, for filing in the U.S. Patent and Trademark Office.

A check for \$180.00 is also enclosed pursuant to 37 C.F.R. § 1.17(p) for filing this Information Disclosure Statement after three months as set forth in C.F.R. § 1.97(c).

The Commissioner is hereby authorized to charge any additional fee or credit overpayment to our Deposit Account No. 08-1290. An originally executed duplicate of this transmittal is enclosed for this purpose.

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Dated: November 21, 2005

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Tanya A. Arenson Registration No. 47,391

MEDLEN & CARROLL, LLP 101 Howard Street, Suite 305 San Francisco, California 94105

608/218-6900



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The citations listed below, copies attached, may be material to the examination of the above-identified application, and are therefore submitted in compliance with the duty of disclosure defined in 37 C.F.R. §§ 1.56 and 1.97. The Examiner is requested to make these citations of official record in this application.

- Rudy, B. & McBain, C. J. Kv3 channels: voltage-gated channels designed for high-frequency repetitive firing. TINS 24, 517-26 (2001).
- Coetzee, W. A. et al. Molecular diversity of K+ channels. Ann N Y Acad Sci 868, 25 233-85 (1999).
 - Brew, H. M. & Forsythe, I. D. Two voltage-dependent K+ conductances with complementary functions in postsynaptic integration at a central auditory synapse. J Neurosci 15, 8011-22 (1995).
- Du, J., Zhang, L., Weiser, M., Rudy, B. & McBain, C. J. Developmental 30 expression and functional characterization of the potassium-channel subunit

- Kv3.1b in parvalbumin-containing interneurons of the rat hippocampus. J Neurosci 16, 506-18 (1996).
- Lenz, S., Perney, T. M., Qin, Y., Robbins, E. & Chesselet, M. F. GABA-ergic interneurons of the striatum express the Shaw-like potassium channel Kv3.1. *Synapse* 18, 55-66 (1994).
- Weiser, M. et al. Differential expression of Shaw-related K+ channels in the rat central nervous system. *J Neurosci* 14, 949-72 (1994).
- Weiser, M. et al., *J Neurosci* **15**, 4298-314 (1995).

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- Martina, M., Schultz, J. H., Ehmke, H., Monyer, H. & Jonas, P., *J Neurosci* 18, 8111-25 (1998).
- Baranauskas, G., Tkatch, T. & Surmeier, D. J. J Neurosci 19, 6394-404 (1999).
- Erisir, A., Lau, D., Rudy, B. & Leonard, C. S., J Neurophysiol 82, 2476-89
 (1999).
- Wigmore, M. A. & Lacey, M. G., J Physiol **527 Pt 3**, 493-506 (2000).
- Schroter, K. H. et al., FEBS Lett 278, 211-6 (1991).
 - Rettig, J. et al., *Embo J* 11, 2473-86 (1992).
 - Diochot, S., Schweitz, H., Beress, L. & Lazdunski, M., J Biol Chem 273, 6744-9
 (1998).
 - Thompson, S., J Gen Physiol 80, 1-18 (1982).
- 20 Song, W. J. et al., J Neurosci 18, 3124-37 (1998).
 - Kofuji, P., Davidson, N. & Lester, H. A., Proc Natl Acad Sci U S A 92, 6542-6 (1995).
 - Sheng, M., Liao, Y. J., Jan, Y. N. & Jan, L. Y., Nature 365, 72-5 (1993).
 - Wang, H. S. et al., Science 282, 1890-3 (1998).
- Abbott, G. W. et al., Cell 104, 217-31 (2001).
 - Macica, C. M. & Kaczmarek, L. K., J Neurosci 21, 1160-8 (2001).
 - Murakoshi, H., Shi, G., Scannevin, R. H. & Trimmer, J. S., Mol Pharmacol 52, 821-8 (1997).
 - Rettig, J. et al., *Nature* **369**, 289-94 (1994).

- Surmeier, D. J., Bargas, J., Hemmings, H. C., Jr., Nairn, A. C. & Greengard, P.,
 Neuron 14, 385-97 (1995).
- Hamill, O. P., Marty, A., Neher, E., Sakmann, B. & Sigworth, F. J., *Pflugers Arch* 391, 85-100 (1981).
- Yan, Z. & Surmeier, D. J., J Neurosci 16, 2592-604 (1996).
 - Tkatch, T., Baranauskas, G. & Surmeier, D. J., Neuroreport 9, 1935-9 (1998).
 - Rhodes, K. J. et al., *J Neurosci* 17, 8246-58 (1997).

This Information Disclosure Statement under 37 C.F.R. §§ 1.56 and 1.97 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one or more of these citations constitutes prior art.

15 Dated: November 21, 2005

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	1	Rudy, B. & McBain, C. J. TINS 24, 517-26 (2001).	
	2	Coetzee, W. A. et al., Ann N Y Acad Sci 868, 233-85 (1999).	
	3	Brew, H. M. & Forsythe, I. D. J Neurosci 15, 8011-22 (1995)	
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STA	STATEMENT BY APPLICANT		First Named Inventor D. James Surmeier, e			
	<i>a</i>			Art Unit	1635	
(Use as many sheets as necessary)			ecessary)	Examiner Name	Chong	
Sheet	2	of	3	Attorney Docket Number	NWESTERN-08739	

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	11	Wigmore, M. A. & Lacey, M. G., J Physiol 527 Pt 3, 493-506 (2000).	
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	44	4		Art Unit	1635	
(Use as many sheets as necessary)			iecessary)	Examiner Name	Chong	
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